

WHAT IS CLAIMED IS:

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1. A method of controlling wireless communication between first and second wireless communication devices that communicate with one another via a wireless communication link on frequencies specified by a predetermined frequency hopping pattern, comprising:

obtaining information indicative of communication quality provided by one of said frequencies;

based on the communication quality information, the first device selecting from the frequency hopping pattern a frequency on which to transmit a selected communication from the first device to the second device; and

the first device transmitting the selected communication to the second device via the wireless communication link on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by the first device.

2. The method of Claim 1, wherein said one frequency is specified by the frequency hopping pattern for transmission of the selected communication.

3. The method of Claim 2, wherein the selected frequency is a frequency other than said one frequency.

4. The method of Claim 3, wherein said obtaining step includes obtaining information indicative of communication quality provided by the selected frequency and determining that the selected frequency provides better communication quality than said one frequency.

5 5. The method of Claim 3, wherein said transmission for which the selected frequency is specified by the frequency hopping pattern is a transmission from the first device to a third device.

6. The method of Claim 2, wherein the selected frequency is said one frequency.

7. The method of Claim 1, wherein the selected frequency is said one frequency.

10 8. The method of Claim 1, wherein said obtaining step includes obtaining information indicative of communication quality provided by a plurality of the frequencies of the frequency hopping pattern.

15 9. The method of Claim 1, wherein said step of transmitting the selected communication includes the first device transmitting a data packet to the second device at said time when the selected frequency is specified by the frequency hopping pattern for a transmission by the first device.

10. The method of Claim 9, wherein said step of transmitting a data packet includes the first device transmitting the data packet to the second device at said time and

also at a time when the frequency hopping pattern specifies a further frequency other than the selected frequency for a further communication involving the first device.

11. The method of Claim 10, wherein the further communication is a transmission from the first device.

12. The method of Claim 10, wherein the further communication is a transmission to the first device.

13. The method of Claim 1, including the second device transmitting a further communication to the first device via the wireless communication link on the selected frequency in response to the selected communication.

14. The method of Claim 1, including the second device transmitting a further communication to the first device via the wireless communication link on said one frequency, said obtaining step including obtaining the communication quality information based on said further communication.

15. The method of Claim 14, wherein said one frequency is specified by the frequency hopping pattern for transmission of the selected communication.

16. The method of Claim 15, including comparing the communication quality information to a communication quality threshold, said selecting step including selecting said

one frequency in response to a determination that the communication quality provided by said one frequency exceeds the communication quality threshold.

5 17. The method of Claim 1, wherein the wireless communication link is a Bluetooth ACL link, and the first and second devices are, respectively, Bluetooth master and slave devices.

18. The method of Claim 1, wherein the wireless communication link is a Bluetooth SCO link, and the first and second devices are, respectively, Bluetooth master and slave devices.

19. A frequency hopping wireless communication apparatus, comprising:
10 a wireless communications interface for communicating with a further frequency hopping wireless communication apparatus via a wireless communication link on frequencies specified by a predetermined frequency hopping pattern;

15 a scheduler for selecting from the frequency hopping pattern a frequency on which to transmit a selected communication to the further apparatus, said scheduler including an input for receiving information indicative of communication quality provided by one of said frequencies, said scheduler responsive to said information for selecting the frequency on which to transmit the selected communication; and

said wireless communications interface coupled to said scheduler and responsive thereto for transmitting the selected communication to the further apparatus on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by said wireless communications interface.

20. The apparatus of Claim 19, wherein said one frequency is specified by the frequency hopping pattern for transmission of the selected communication.

21. The apparatus of Claim 20, wherein the selected frequency is a frequency other than said one frequency.

22. The apparatus of Claim 21, wherein said transmission for which the selected frequency is specified by the frequency hopping pattern is a transmission from said wireless communications interface to a frequency hopping wireless communication apparatus other than the further apparatus.

23. The apparatus of Claim 20, wherein the selected frequency is said one frequency.

24. The apparatus of Claim 19, wherein the selected frequency is said one frequency.

25. A frequency hopping wireless communications system, comprising:
a first frequency hopping wireless communication device;

a second frequency hopping wireless communication device for communication with said first device via a wireless communication link;

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said second device including a wireless communications interface for communicating with said first device via said wireless communication link on frequencies specified by a predetermined frequency hopping pattern, and a scheduler for selecting from the frequency hopping pattern a frequency on which to transmit a selected communication to said first device, said scheduler including an input for receiving information indicative of communication quality provided by one of said frequencies, said scheduler responsive to said information for selecting the frequency on which to transmit the selected communication, said wireless communications interface coupled to said scheduler and responsive thereto for transmitting the selected communication to said first device on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by said wireless communications interface.

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26. The apparatus of Claim 25, wherein said first device is responsive to the selected communication for transmitting a further communication to said second device via the wireless communication link on the selected frequency.

27. The apparatus of Claim 25, wherein said one frequency is specified by the frequency hopping pattern for transmission of the selected communication, said first device

operable for transmitting a further communication to said second device via the wireless communication link on said one frequency, said scheduler having a further input for receiving information indicative of whether communication quality associated with said further communication exceeds a communication quality threshold, said scheduler responsive to said further input for selecting said one frequency for transmission of the selected communication if the communication quality associated with said further communication exceeds the communication quality threshold.

28. The apparatus of Claim 25, wherein the wireless communication link is a Bluetooth ACL link, and said first and second devices are, respectively, Bluetooth slave and master devices.

29. The apparatus of Claim 25, wherein the wireless communication link is a Bluetooth SCO link, and said first and second devices are, respectively, Bluetooth slave and master devices.